



Province of British Columbia

Annual Report 1986-87

MINISTRY OF
TRANSPORTATION
AND HIGHWAYS

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*To the Honourable DAVID C. LAM,
Lieutenant Governor of the Province of British Columbia.*

MAY IT PLEASE YOUR HONOUR:

I am pleased to submit the Annual Report of the Ministry of Transportation and Highways for the period of April 1, 1986 to March 31, 1987.

Neil Vant
Minister of Transportation and Highways

*The Honourable Neil Vant,
Minister of Transportation
and Highways,
Parliament Buildings,
Victoria, B.C.*

SIR:

We have the honour to submit the Annual Report for the fiscal period ending March 31, 1987.

Respectfully submitted,

M. V. Collins, *Acting Deputy Minister*

G. S. Hogg, *Assistant Deputy Minister
Administrative Services*

B. R. McKeown, *Acting Assistant Deputy Minister
Planning and Major Projects*

D. P. Doyle, *Acting Assistant Deputy Minister
Highways Operations*

R. K. Jackman, *Superintendent of Motor Vehicles*

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MISSION AND OBJECTIVES



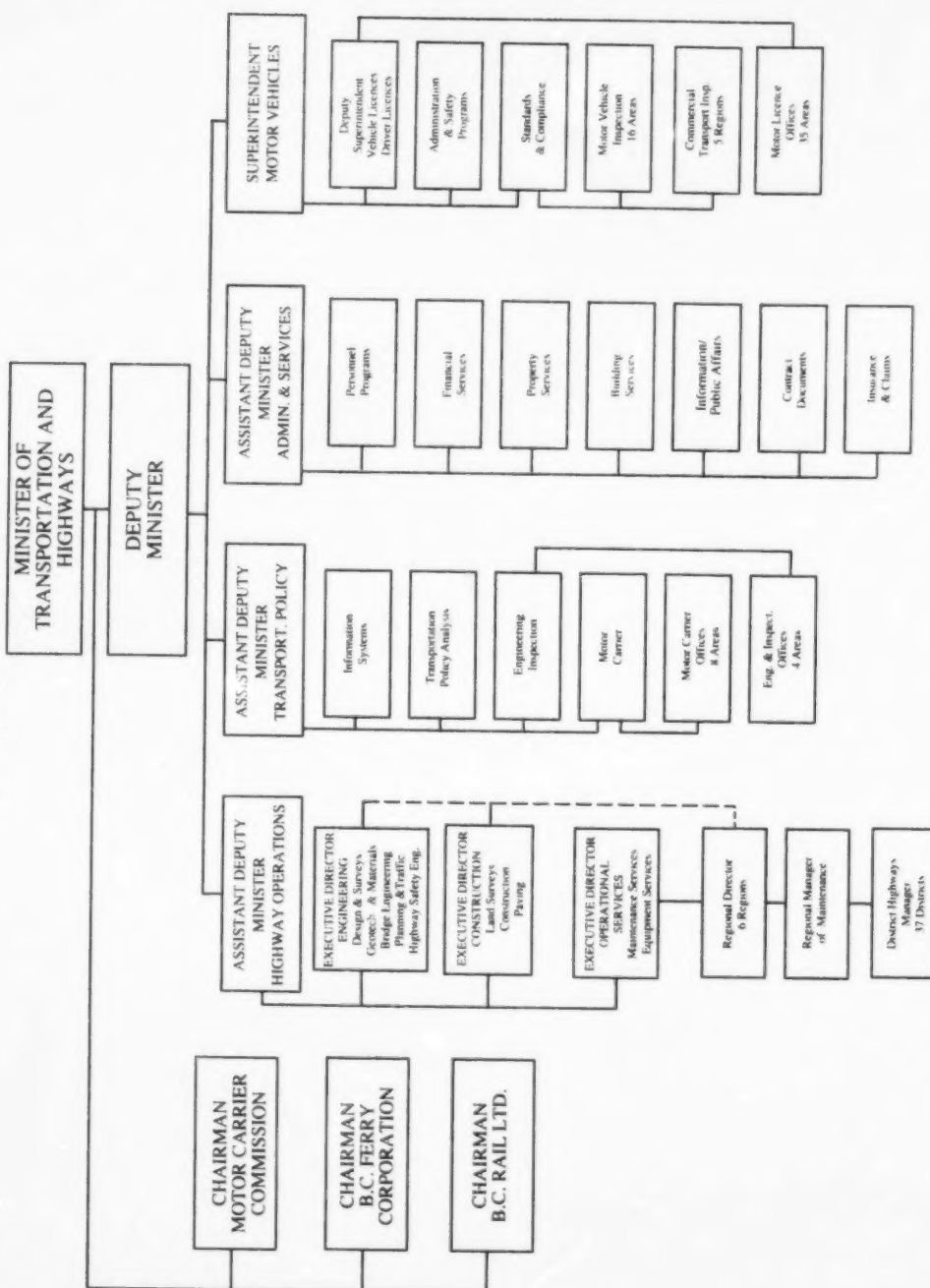
MISSION

To provide and maintain safe and efficient movement of people and resources on a provincial transportation system in conjunction with the economic development of the Province in a socially and environmentally acceptable manner.

OBJECTIVES

- To design, construct, operate and maintain a safe highway and inland ferry system in British Columbia.
- To develop regulations for safe standards for highway conditions, vehicle equipment, driving habits and skills at an optimum level.
- To support, accelerate and enhance development of air transport services within the Province and assist in the development of community airport facilities.
- To develop and enforce standards for the commercial transport industry.
- To regulate public carrier services including buses, trucks and taxis.
- To ensure that aerial tramways, pipelines and railways under provincial jurisdiction are maintained and operated to acceptable standards.
- To formulate air, marine, rail and vehicle transportation policies, improve systems and services in support of social and economic development of British Columbia.
- To provide information and expertise in drafting legislation and regulations for inter-provincial, extra-provincial and federal/provincial transportation matters.

ORGANIZATION CHART



OVERVIEW OF 1986-87



OVERVIEW OF 1986-87

This report provides a detailed review of all Ministry of Transportation and Highways activities for the fiscal year ending March 31, 1987.

This year the report has a new format which better communicates the Ministry's mandate and organization, mission and objectives. These changes are in response to recommendations made by the Auditor General and constitute a significant first step in an effort to improve the quality of information contained in the report.

This past year, two of the most ambitious projects this Province has seen in over 20 years — Phase I of the Coquihalla and the Alex Fraser Bridge and Annacis System were officially opened. We were also a proud participant at Expo 86 and transportation displays including the first natural gas-powered ferry, the MV *Klatawa*.

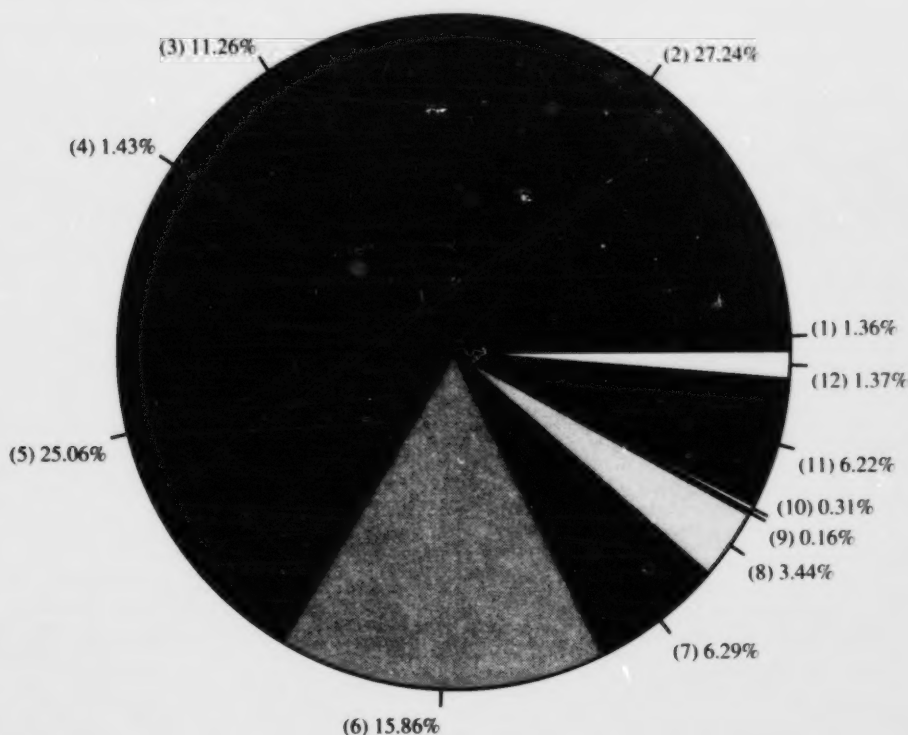
On May 27, 1986, amendments were made to the *Motor Vehicle Act* which strengthened laws relating to impaired and hit-and-run drivers and other serious offenders.

In June, the Ministry officially opened the Don Campbell Way in Vernon in memory of the former Okanagan MLA.

Other major programs included implementation of the Commercial Vehicle Inspection Program, which has proven a great success. We announced the Yellowhead Highway Improvement Program and signed an agreement designating \$36 million to be spent in British Columbia over the next three years with Ottawa contributing \$18 million.

HOW THE TRANSPORTATION AND HIGHWAYS DOLLAR WAS SPENT FISCAL YEAR 1986-87

	§
1. Administration and Services Department (Including Minister's Office)	13,485,956
2. Highway Maintenance	270,939,310
3. Highway Capital Maintenance	111,995,983
4. Small Bridges Program	14,265,029
5. Highway Capital Construction	249,185,209
6. Coquihalla Highway Construction	157,675,130
7. Fraser River Crossing (Annacis) Construction	62,593,386
8. Transportation Policy Department (Administration; Transportation Policy Analysis); Motor Vehicle Department; Motor Carrier Commission and Branch	34,211,750
9. Pipeline and Tramway Inspections	1,608,459
10. Air Transport Assistance Program	3,078,561
11. Contributions to the British Columbia Ferry Corporation	61,821,300
12. Contributions to the British Columbia Railway Company	13,611,073
	<u>994,471,146</u>



SUMMARY OF HIGHWAY CAPITAL AND MAINTENANCE EXPENDITURES FISCAL YEAR 1986-87

Electoral District	Highway Maintenance	Highway Capital Maintenance	Small Bridges Program	Highway Capital Construction	Coquihalla Highway Construction	Fraser River Crossing (Annapolis) Construction	Total Expended
Alberni	2,246,721	445,460	195,000	241,259			3,128,440
Atlin	7,894,957	4,391,469	1,932,982	236,826			14,456,234
Boundary-Similkameen	7,141,981	4,948,924	363,846	7,200,338			19,655,089
Burnaby-Edmonds	2,407,400	25,717		82,133		87,476	2,602,726
Burnaby North	207,748			69,078			276,826
Burnaby-Willingdon	235,784	257,591		50,885		21,030	565,290
Cariboo	18,089,458	14,577,144	586,466	28,504,114			61,757,182
Central Fraser Valley	707,615	59,224	504,442	7,305,477	29,753		8,606,511
Chilliwack	2,280,745	1,637,243	208,518	15,800,891	25,999		19,953,396
Columbia River	5,007,281	6,510,471	1,064,737	1,194,382			13,776,871
Comox	3,937,587	585,567	1,527,855	264,119			6,315,128
Coquitlam-Moody	575,505	7,728		1,593,806			2,177,039
Cowichan-Malahat	3,197,057	397,929	88,916	234,536			3,918,438
Delta	1,509,995	998,517	139,295	119,779		25,206,051	27,973,637
Dewdney	3,292,619	256,786	21,500	7,427,766			10,998,671
Esquimalt-Port Renfrew	2,396,562	334,449	38,261	705,789			3,475,061
Kamloops	9,316,761	2,484,831	78,295	15,935,171			46,858,421
Kootenay	4,669,988	5,369,335	161,266	951,215	19,043,363		11,151,804
Langley	1,826,030	173,258		3,019,919			5,019,207
Mackenzie	2,233,504	397,185	45,000	301,246			2,976,935
Maillardville-Coquitlam	300,603	204,455		233,669			738,727
Nanaimo	4,235,515	673,888		1,014,055			5,923,458
Nelson-Creston	13,706,598	2,194,498	1,077,838	679,503			17,658,437
New Westminster	404,253	105,158		249,779		12,867,280	13,626,470
North Island	4,216,763	1,007,971	144,853	112,250			5,481,837
North Peace River	7,304,134	3,344,503	1,763,743	6,596,819			19,009,199
North Vancouver-Capilano	682,258	41,793		816,813			1,540,864
North Vancouver-Seymour	336,178	40,805	515,126	403,975			1,296,084
Oak Bay-Gordon Head							

SUMMARY OF HIGHWAY CAPITAL AND MAINTENANCE EXPENDITURES FISCAL YEAR 1986-87 — Continued

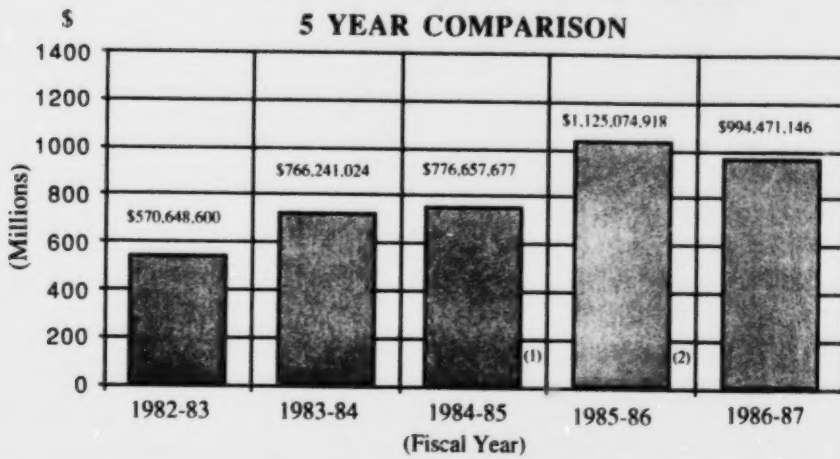
Electoral District	Highway Maintenance	Highway Capital Maintenance	Small Bridges Program	Highway Capital Construction	Coquihalla Highway Construction	Fraser River Crossing (Anacis) Construction	Total Expended
Okanagan North	5,912,729	1,192,765		14,072,163			21,177,657
Okanagan South	3,207,389	1,357,955	114,494	7,367,856	14,579,476		26,627,170
Omineca	11,611,826	4,294,171	219,117	4,551,890			20,677,004
Prince George North	5,009,012	2,063,234	1,235,006	3,631,918			11,939,170
Prince George South	7,997,760	8,259,766	245,705	14,166,797			30,670,028
Prince Rupert	1,913,654	3,164,256		194,504			5,272,414
Richmond	1,356,987	93,553		95,741		23,719,520	25,265,801
Rossland-Trail	3,491,899	560,077	110,000	115,941			4,277,917
Saanich and the Islands	2,352,883	424,262		5,278,703			8,055,848
Shuswap-Revelstoke*	11,208,708	2,322,229	379,750	10,513,334			24,424,021
Skeena	7,879,374	5,633,576	221,887	436,508			14,171,345
South Peace River	8,266,207	8,414,799	159,937	7,350,088			24,191,031
Surrey	2,713,105	3,445,671		9,873,057		138,633	16,170,466
Vancouver Centre	443,968			108,292			552,260
Vancouver East	164,176			347,247			511,423
Vancouver-Little Mountain	—						—
Vancouver-Point Grey	266,197			43			266,240
Vancouver South	581,454						581,454
Victoria	—						—
West Vancouver-Howe Sound	4,085,536	1,519,042	234,591	23,420,742			29,259,911
Yale-Lillooet	16,851,591	8,806,748	411,355	15,399,968	120,890,115		162,359,777
Headquarters Charges	65,263,255	8,971,980	475,248	30,914,825	3,106,424	553,396	109,285,128
TOTAL	270,939,310	111,995,983	14,265,029	249,185,209	157,675,130	62,593,386	866,654,047

* Net of Hydro Development Highway Construction Recoveries.

SUMMARY OF EXPENDITURE BY APPROPRIATION FISCAL YEAR 1986-87

Vote No.	Description	Total Appropriations—			Actual Expenditure
		Estimated	Other Authorizations	Total	
72	Minister's Office	\$ 226,849	\$	\$ 226,849	\$ 213,523
73	Administration and Services Department Statutory— <i>Constitution Act</i> (R.S.B.C. 1979, chap. 62, secs. 13 and 14) —Transfer to the Ministry of Provincial Secretary and Gov- ernment Services	13,278,396			
74	Highway Operations Department Statutory— <i>Financial Administration Act</i> (S.B.C. 1981, chap. 15, sec. 23 (3))	861,654,342	(5,500)	13,272,896	13,272,433
75	Motor Vehicle Department	31,870,389	4,999,705	866,654,047	866,654,047
76	Motor Carrier Commission and Branch	2,721,973		31,870,389	30,363,377
77	Transportation Policy Department	83,035,652		2,721,973	2,713,296
78	Air Services Branch Statutory— <i>Constitution Act</i> (R.S.B.C. 1979, chap. 62, secs. 13 and 14) —Transfer to the Ministry of Provincial Secretary and Gov- ernment Services	7,841,098		83,035,652	81,254,470
			(7,841,098)		
		<u>1,000,628,699</u>	<u>(2,846,893)</u>	<u>997,781,806</u>	<u>994,471,146</u>

TOTAL VOTED EXPENDITURES **5 YEAR COMPARISON**

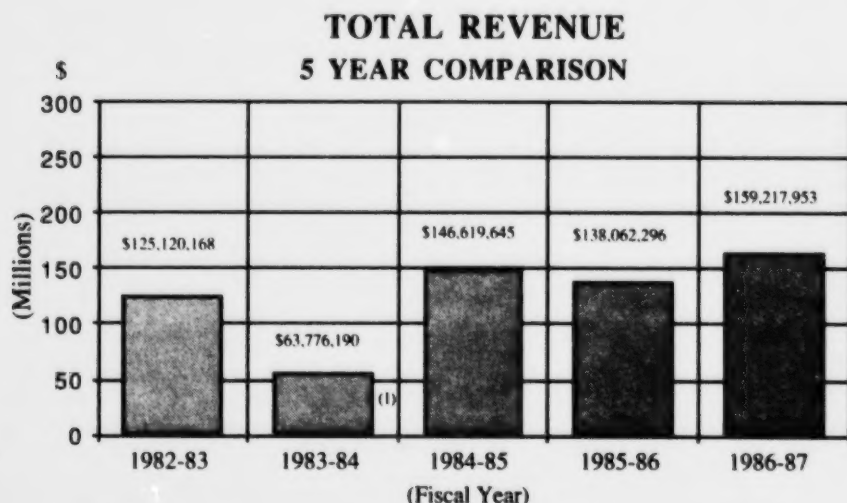


Notes: (1) Includes special warrants totalling \$226,408,000.
(2) Includes special warrants totalling \$118,800,000.

SUMMARY OF MINISTRY REVENUE BY SOURCE FISCAL YEAR 1986-87

	Actual \$
Sales and Services	
Coquihalla Highway Tolls	11,060,965
Licences and Permits	
Motor Vehicle Licences	129,030,240
Miscellaneous:	
Engineering Inspections	30,054
Plan Sales and Subdivision Fees	192,591
Miscellaneous	
Insurance and Claims	612,780
Municipal Share Joint Service Program	311,027
Other Miscellaneous:	
Miscellaneous Highways	1,768,927
Street Lighting	832,785
Federal Contributions	
Transportation and Highways	
Federal Ferry Subsidy	15,378,584
Total Revenue	159,217,953

Note: Revenues shown reflect Ministry of Transportation and Highways receipts only. Information in the Public Accounts identifying revenue by source will contain revenue from all ministries, particularly in the case of "miscellaneous" receipts.



Note: (1) Accounting adjustment to motor vehicle revenues, deferring receipts over 12 months resulted in a dramatic drop in revenues in fiscal 1983-84.



ADMINISTRATION AND SERVICES



ADMINISTRATION AND SERVICES

PERSONNEL PROGRAMS

During the past year, 687 competitions were posted, 1,287 appointments to regular and auxiliary positions were made and eight appeals were received on appointments.

There were 237 injuries involving lost time beyond the day of the accident, and one fatality.

Workers' Compensation costs increased by \$21,792 for a total cost of \$1,217,218.40. The countable accident frequency improved over last year even though there was a 7.7% increase in exposure hours. Compensable injuries were reduced to 494 from 526.

In 1986-87, 80 managers completed the first module of our Management Development Program; 300 supervisors participated in one or more of the Supervisory Development Program modules; 230 employees completed the business letter writing course, and 12 employees were sponsored by the Ministry into the Government Financial Management and Control Course.

There was a 28% increase in the number of employees participating in the Technology Training Programs with 463 employees registered in the full National Transportation Systems Diploma Program and 1,303 registered in the Technical Skills Program.

The Ministry Apprenticeship Program added two trades: Marine Engineering and Industrial Warehousing to the current trades where we indenture 76 apprentices in Heavy Duty Mechanics, Electrical Work, Radio Electronics, Industrial Electronics, Welding, Piledriver/Bridgeman and Diesel Engine Repair.

In 1986-87, 18 apprentices completed their Apprenticeship Program.

Audio-visual materials were used on the job-site by Engineering branches, Inspectors, District Coordinators, Shop Foreman, Driver Trainers, Health and Safety Officers, and Equipment Services Managers to improve safety practices and raise productivity.

In 1986-87 Ministry Driver Trainers provided courses in defensive driving, hazard avoidance, truck-mounted crane safety, grader and loader operational upgrading and air brake courses.

In 1986-87, Ministry vehicles travelled over 80,000,000 kilometres. Accident frequency was 8.7 with a 4.6 preventable rating. In an effort to identify consistent problems and trends relating to accident, the Ministry developed an accident analysis system which runs on a Wang personal computer.

One hundred forty-nine grievances were filed during 1986, a decrease of 43 from the previous year. As of April 1, 1987, the Ministry had 25 grievances filed at arbitration from this and previous years; 114 grievances were resolved prior to arbitration.

In 1986-87, authority was granted to determine the classification levels for 96% of the 6,700 plus full-time equivalents with over 1,100 positions reviewed.

Two new classification series, Industrial Warehousing Trades and Sign Fabricators, were negotiated and implemented while development work continued on Industrial Inspection/Safety, Scientific Technical, and Administrative Officer, Marine Deck Crew, Foremen and Machine Operator Series. This developmental work encompasses just over 50% of the work force in these areas and will take three years to complete.

FINANCIAL SERVICES

In 1986-87, Financial Services Branch undertook a number of initiatives designed to enhance financial controls and reporting systems. Included among these was the establishment of the Coquihalla Highway toll collection system and the revision and redesign of a number of the Ministry's financial reports to provide users with better management information. There was also a significant increase in the use of microcomputers for accounting applications in the branch.

INFORMATION/PUBLIC AFFAIRS

Information/Public Affairs Office responded to an average of 250 telephone calls a week from the news media, general public and other Government ministries.

Other duties included preparation of the Ministry's communication plan and coordination of advertising programs for public information on road closures, etc.

Staff researched, wrote and arranged for the distribution of 388 news releases to regional media and the Press Gallery in Victoria.

Personnel assisted in the preparation of the B.C. Air Facilities Map, and assisted the Ministry of Tourism, Recreation and Culture in updating the Provincial Government road map. In addition, staff edited and produced the annual report, statistical reports, pamphlets and the Roadrunner magazine.

CONTRACT DOCUMENT BRANCH

The Contract Documents Branch produced legal documentation for the Ministry including tabulation, assembly, printing and advertisement of documents and plans.

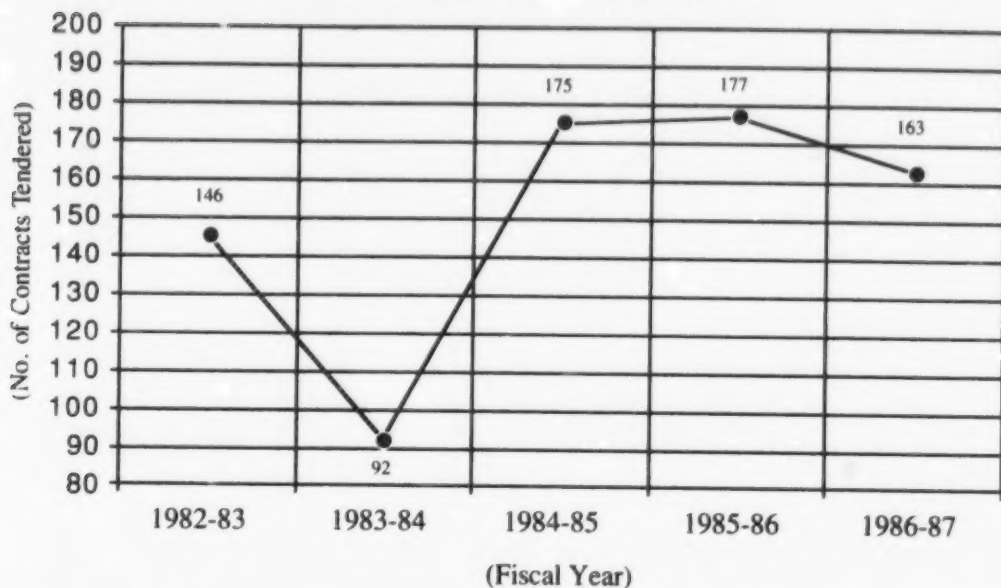
One hundred sixty-three formal contracts were produced and awarded this year which together with the previous year's carry-over, required the production of more than 175 progress estimates per month through which contractors received payment for work performed.

Printing production has been in the order of 8.5 million impressions on the offset and 1.5 million square feet of plan production for both contract and internal requirements.

FORMAL CONTRACTS PRODUCED IN 1986-87 BY CONTRACT DOCUMENTS

Highway Construction.....	37
Asphalt Surfacing.....	35
Bridge Construction.....	20
Maintenance Gravel Crushing.....	47
Bridge Maintenance Cleaning and Painting.....	10
Landscaping.....	10
Weigh Scales.....	2
Miscellaneous.....	2
Total.....	163

FORMAL CONTRACTS PRODUCED 1982-87



INSURANCE AND CLAIMS

The number of traffic incidents involving vehicles owned by (or leased to) the Government was 1,358. A total of \$323,187.39 was recovered from ICBC and other automobile liability insurers for damage to Government vehicles.

Claims other than those arising out of accidents involving Government vehicles resulted in recovery of repair costs of \$648,185.84 in 508 incidents for damages to Ministry property such as guardrails, bridges, signs, lamp or signal standards, fences, posts and poles and miscellaneous items such as flagging, clean-up of spills, pavement repairs and vandalism. Not included were 31 claims against insurance policies purchased by the Ministry. The claims totalling \$98,002.48 were covered by the insurance policies. An additional \$19,824.01 was recovered from private contractors for policy deductibles and claims under the deductibles.

Additionally, in 90 claims arising from the transferring of Government employees, the amount recovered from the Provincial Government insurers and carriers was \$27,676.52.

In 1,074 miscellaneous third party claims against the Ministry, the total amount paid was \$121,306.09, including \$3,046.61 for claims arising from operations of Ministry ferries. Three claims handled on behalf of B.C. Steamship Company resulted in settlements totalling \$1,056.92.

In 42 lawsuits in which the Government was the defendant, 13 were discontinued, 11 were settled out of court, 13 were dismissed, one appeal was dismissed, one judgment was for the defendant, two judgments were for the plaintiff, and in one case, the Ministry was removed from the action. In nine cases in which the Government was the plaintiff, six were settled out of court and three actions were discontinued. There are presently 201 cases in various stages of litigation, the Government being the plaintiff in 40 of these.

The premiums paid for insurance placed during the year were \$138,833.96 for B.C. Steamship (1975) Ltd., \$1,456,448.83 for the Ministry of Transportation and Highways, and \$193,099.38 for Commissions and other Ministries.

BUILDING SERVICES BRANCH

The Building Services Branch is responsible for the location, design, equipping and maintenance of 178 Provincial highway yards, maintenance sheds, camps, mechanical shops, laboratories, rest area buildings, salt sheds, fabrication shops, storage buildings, welding shops, paint shops, also power, water, heating, ventilation, sewage treatment plants; 35 motor licence offices, 43 highways and headquarters office complexes, and 40 weighscale stations, all amounting to some 2½ million square feet.

Major projects completed included the Coquihalla toll booths, weighscale stations at Annacis and Pacific Highway, Vancouver; Coldwater yard and camp, Coquihalla Phase I; new yards and garages at Merritt, Annacis and Kamloops, also a roads building at Kamloops. Floor plans and functional programs were also prepared for the new body and welding shop at Pouce Coupe, new mechanical and electrical shop at Cassidy, regional laboratories at Burnaby and Kamloops, a new yard at Lumby and a sign crew shop at Surrey.

Some 300 improvement projects for existing facilities were also planned, priced and carried out with all necessary drawings and specifications prepared by staff.

HIGHWAY OPERATIONS



HIGHWAY OPERATIONS

CONSTRUCTION BRANCH

The Construction Branch is responsible for the administration and management of the Capital Highway Grade Construction Program throughout the Province involving direct headquarters and field supervision of all contracts including organization, contract administration, quality control and fiscal responsibility. In addition, it supervises and manages major day labour projects as assigned.

In the Lions Bay area, on Highway 99, work on debris torrent channels at Harvey, Alberta and Newman Creeks is nearing completion.

On the Okanagan Highway a new Westbank-Kelowna section and the Vernon-Old Bailey Road section opened for a total of 15 kilometres of four-lane highway completed in 1987.

On September 23, 1986, the Annacis Highway Route and system was opened to traffic by the Premier and other Government members.

To connect the Annacis Freeway to Richmond and Vancouver, a major initiative began in 1985 to construct the Richmond East/West Freeway, which will extend from the Hamilton Interchange to Highway 99.

Two major contracts were awarded this year to construct the complex Highway 99 and Richmond East/West Freeway Interchange.

Constructing the 137-kilometre Coquihalla freeway through narrow valleys and along and over mountains represented a major construction and engineering challenge.

In addition to the Hope-Merritt section, the Abbotsford-Hope section was completed to four-lane freeway standard. Completion of the two projects from Wahleach Power Station to Jones Creek was especially difficult as the mountain side required extensive stabilization measures.

Phase II of the Coquihalla Highway from Merritt to Kamloops was started in early 1986. All grading contracts were awarded in 1986, and only one crushing project had to be awarded in 1987. All projects made excellent progress with two grading contracts, four clearing and grubbing, and six crushing contracts completed. The 85-kilometre route had 28 active projects this year, 25 being contracts, and three day labour.

The government continued the Coquihalla initiative by starting construction on Phase III, Merritt to Peachland. Nine contracts are underway to start construction on the 125-kilometre route. Construction will be difficult as the route climbs from Merritt to a summit of 1,740 metres (5,700 feet) near Brenda Mines and drops quickly on a mountain side through the Trepanier Valley to Peachland.

Property Agents were active during the year in completing property acquisitions and removing buildings or structures within the highway right of way in advance of construction schedules. The main areas of concentration were the Lower Mainland, Kamloops and Highway 97 in the Okanagan.

Major activities included the following:

- Research on the legal status of 105 roads of which 76 involved Indian Reserves.
- Expenditures for rights of way and other properties required by the Ministry totalled \$21,227,244.56 with 894 settlements achieved and no arbitrations.

- There were 1,034 gazettes establishing rights of way processed by publication in *The British Columbia Gazette* and 94 closures made by similar procedure.
- Surplus highway lands were disposed of as follows: 23 parcels to Ministry of Forests and Lands; four parcels to Municipalities; 24 parcels to individuals as land exchange for new highway rights of way; and 39 parcels closed road allowances by Order in Council.

PROJECTS AND CONTRACTS

(fiscal year summary)

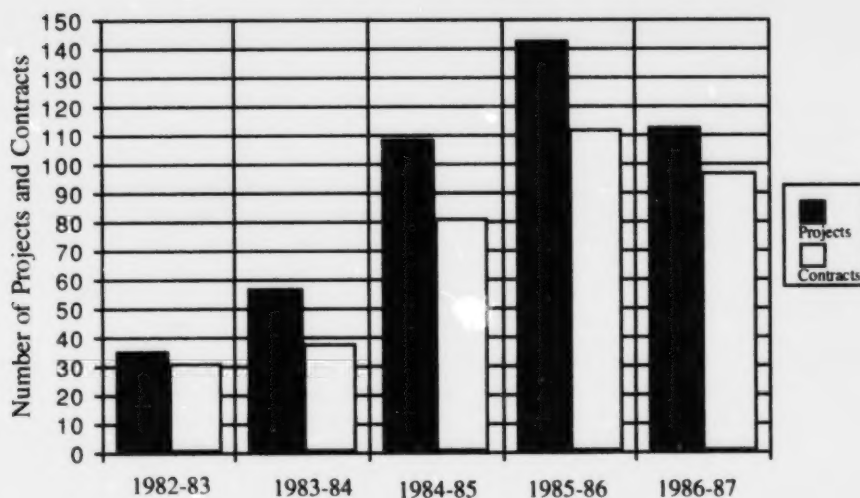


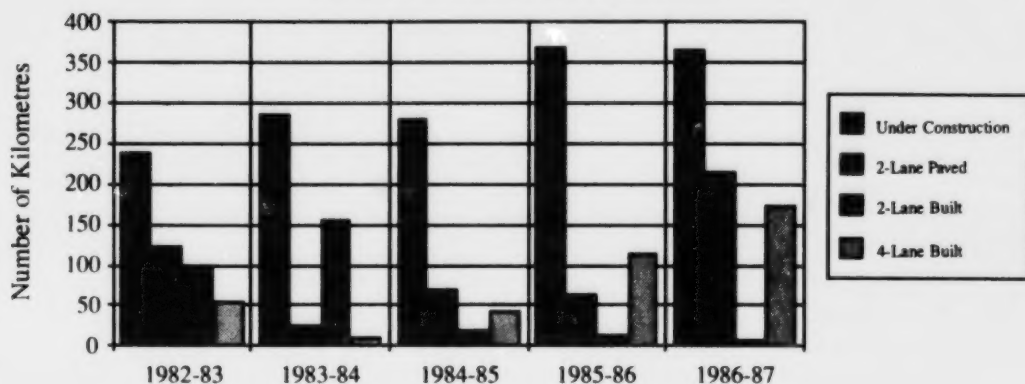
Table below shows contracts by type being carried out this year:

	Two-Lane	Four-Lane	Total
Urban Reconstruction/Relocation.....	1	17	18
Urban New Route.....	2	15	17
Rural Reconstruction/Relocation.....	4	11	15
Rural New Route.....	—	30	30
Other.....	—	—	18
	7	73	98

Includes 49 Coquihalla Contracts
 12 Annacis Contracts
 9 Richmond East/West Freeway Contracts

CONSTRUCTION BRANCH

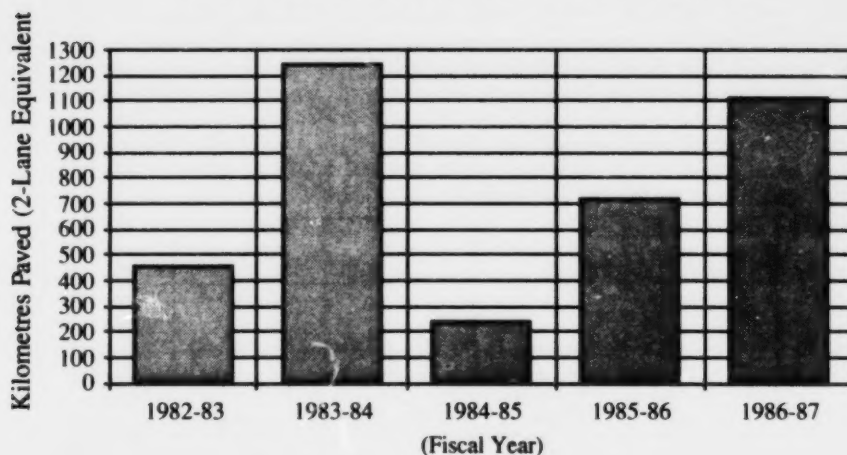
CONSTRUCTION AND PAVING KILOMETRE SUMMARY



PAVING BRANCH

In the 1986-87 fiscal year, 68 capital paving and recycling projects were tendered.

ASPHALT PAVING - KILOMETRES



Fiscal Year	Asphalt Concrete Paving (km)	Sealcoating (km)
1986/87	1 115	768
1985/86	727	451
1984/85	243	423
1983/84	1 247	570
1982/83	458	440

(All Distances Shown Are 2-Lane Equivalent)

A total of 1,115 kilometres of road was recycled or surfaced with asphalt pavement during the year. This included 739 kilometres of repaving or recycling of existing highway alignments, as well as 376 kilometres of new pavement. A 52.26-kilometre section of roadway was cold recycled in-place under day labour using hired and Ministry equipment, and was later resurfaced under contract.

In addition to paving work, operation crews applied surface seals on 725.20 kilometres.

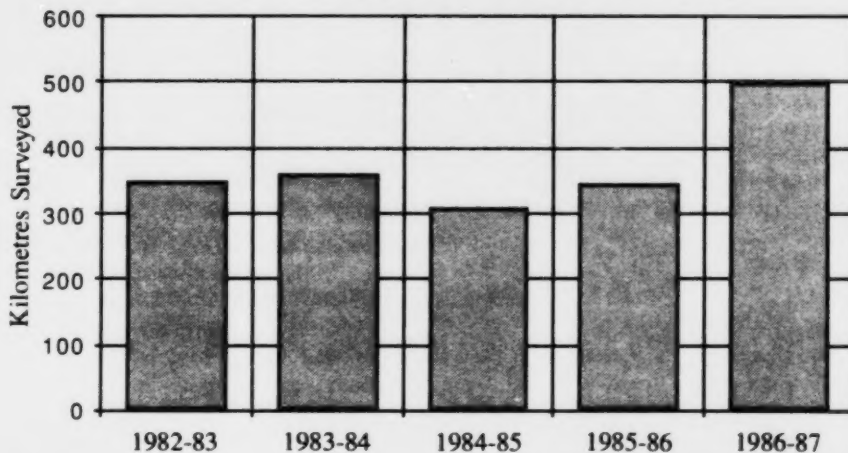
Curb and gutter construction was undertaken and completed this year to upgrade Highway 97 through Penticton and Highway 1 through Hope. Work was also begun on projects at Aldergrove and Haney, where construction is nearing completion, and in Fort Langley and Cranbrook, where work has commenced and will be completed in 1987.

LAND SURVEYS OFFICE

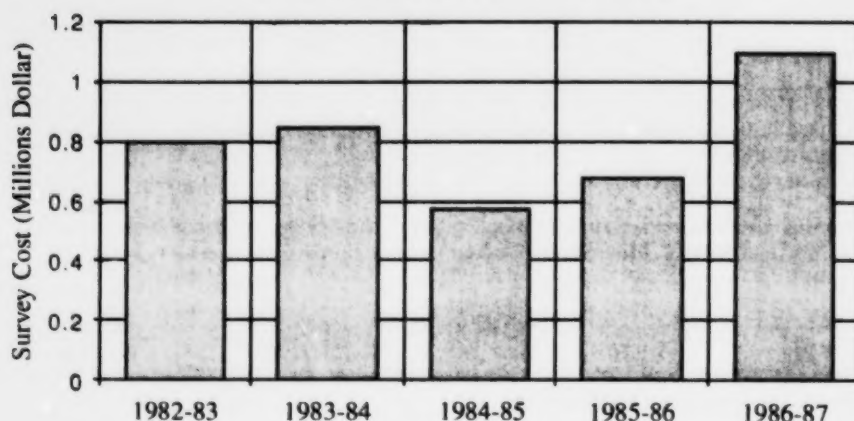
Two hundred eighteen land survey contracts were awarded from funds provided by the Legal Survey, Construction and Paving Votes and the length of highways legally surveyed totalled 502 kilometres. Included in this distance were 57 kilometres of improved Alaska Highway between Buckinghorse River and Profit River, 20 kilometres of Liard Highway, 122 kilometres of the Coquihalla Highway and 15 kilometres of Annacis Highway 91 and connecting roads.

Survey contracts were also awarded for other Ministry requirements such as subdivision plans, restoration of cadastral and integrated survey monuments, easement, lease and gazette plans. In addition, because of major changes in highway alignment, statutory right-of-way plans were prepared for relocations of British Columbia Rail, British Columbia Hydro and Power Authority (railway and power lines), Burlington Northern Railroad, Canadian National Railways, Inland Natural Gas and West Coast Transmission Pipe Line Co. Ltd.

LAND SURVEYS OFFICE



LAND SURVEYS OFFICE



DESIGN AND SURVEYS BRANCH

The Design and Surveys Branch worked and Surveys Branch worked on 155 projects during the year representing 886.62 kilometres of two-, four- and five-lane highway.

The major areas of design effort were the Coquihalla Highway, Richmond East/West Freeway, Highway 99 from Horseshoe Bay to Squamish and Highway 97 in the Okanagan.

With Phase II of the Coquihalla Highway (Merritt to Kamloops), two construction contracts consisting of 6.27 kilometres of roadway and one crushing contract were awarded. A corridor study was completed on Phase III (Merritt to Okanagan). Seven construction contracts were awarded on Coquihalla Phase III totalling 51.51 kilometres of roadway.

Two construction projects totalling 5.3 kilometres, including wick drain and soils densification were awarded on the Richmond East/West Freeway. The project design is completed on the remaining six kilometres plus the associated interchanges.

Along the Squamish Highway (No. 99) two contracts were awarded for the Alberta Creek Bridge and channelization. The design and investigation of remaining sections is underway and reports have been received from consultants on the geotechnical and cost aspects.

Ten miscellaneous and "other" highway contracts totalling 31.1 kilometres were also awarded throughout the Province.

A list of these design projects showing the three principal stages of investigation, the length of road involved and the degree of completion of the study is available in the appendix.

Two environmental specialists carried out a significant number of environmental studies in association with preliminary highway functional and design studies. On Coquihalla Phase III, consultants carried out studies to review and assess wildlife, agriculture, fisheries, forestry, water quality and recreation in relation to engineering designs.

The continuation of the wildlife study between Merritt and Kamloops involves radio-tagging 15 different kinds of animals and assessing their ranges and migration routes across the new highway. Mitigation in the form of fencing has been developed based on these studies.

During 1986-87 highway construction and operation noise impact assessments were carried out on the Okanagan Lake end of Phase III of the Coquihalla, the Abbotsford Bypass, the Inland Island Highway, and the Upper Levels at the Lonsdale Interchange where a noise barrier is planned.

A series of tire-noise tests were also carried out on three "quiet" pavement mixes (open-graded asphalts) on adjacent sections of the Annacis Spine Road near Highway 10. The most promising mix was installed as top lift on a stretch of Highway 10 near 72nd Street in Delta for long-term noise and durability evaluations.

An assessment of potential off-highway logging truck noise was conducted to study the impact on residents of Alice Arm (for Ministry of Forests and Lands).

BRIDGE BRANCH

Three bridges were built across Harvey Creek and seven across Alberta Creek, in the village of Lions Bay on Highway 99.

By year end the substructure was nearly completed and structural steel was well underway for the Yellowhead Fraser River Crossing in Prince George.

Twenty-four bridge decks, with a total area of 20,000 square metres, were resurfaced at locations widely dispersed throughout the Province.

GEOTECHNICAL AND MATERIALS BRANCH

The Geotechnical and Materials Branch continued to test 202 pavement spring control sections. Quality control and assurance testing involving 100,000 routine and non-routine tests were done for soils, aggregates, concrete and other materials purchased by the Ministry, including tests for 42,000 no-post concrete barriers produced in 11 plants throughout the Province. Specialized evaluation and studies of new compounds to be used in bridge decks, traffic paints and non-alkyd coatings.

MUNICIPAL PROGRAMS SECTION

In the Municipal Programs Section construction grants for secondary highways amounted to \$2,332,745, while maintenance on 352 kilometres was cost shared to a total of \$557,291.

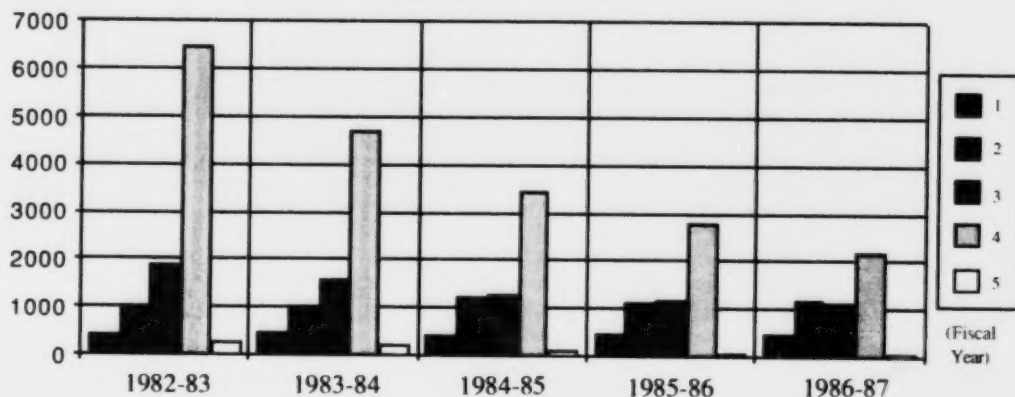
The Ministry received 126 applications for road construction grants under the *Revenue Sharing Act*; recommended spending \$10,282,000 on 60 projects; negotiated with 32 municipalities concerning urban street renewal and bridge assistance; and made recommendations concerning 14 proposed boundary extensions, restructures and new municipal incorporations.

Listing of arterial and secondary highways is available in the Ministry Library.

The Approvals Section issued 473 controlled access permits, 2,873 ordinary access permits, 1,170 zoning bylaws, approved 4,329 subdivisions, created 1,132 lots, dedicated 74.817 kilometres of new road, and widened 130.147 hectares of right of way to existing highways.

The Coquihalla Planning Section oversaw Phase I from Hope to Merritt which opened May 16, 1986 and carried 1.2 million vehicles in the first year of operation. August was the peak month with over 7,200 vehicles per day. Phase II is ahead of schedule and will open September 4, 1987. Phase III design is nearing completion with 10 grading and two crushing contracts awarded.

FISCAL SUMMARY REGULATORY ACTIVITIES 1982-83 to 1986-87



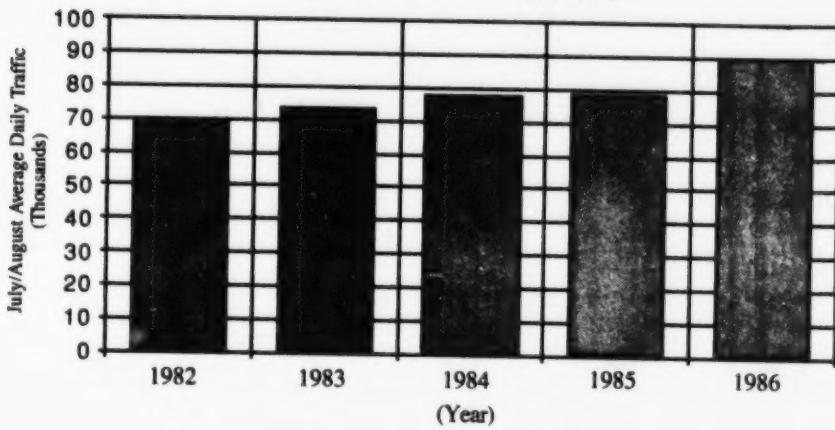
	FISCAL YEAR				
	82-83	83-84	84-85	85-86	86-87
1. Controlled Access Permits	432	482	436	508	473
2. Zoning Bylaws	1,008	1,014	1,231	1,136	1,170
3. Subdivisions (final)	1,913	1,587	1,276	1,204	1,132
4. Lots Created (final)	6,492	4,723	3,490	2,799	2,184
5. Kilometres of New Road Dedicated	261	226	144	88	75

TRAFFIC SECTION

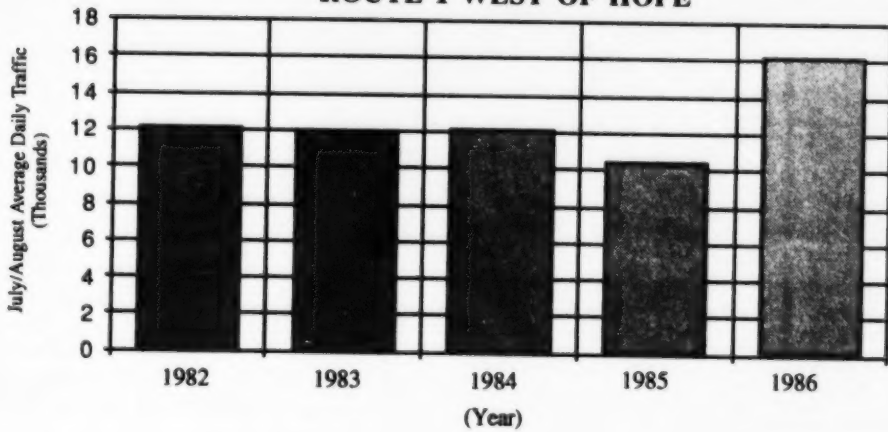
The Civil Traffic Section developed telemetry to retrieve traffic volume data to a Victoria based computer from 28 permanent count stations; prepared new designs for 36 intersections and media island projects; dealt with a large number of requests for new vehicle or pedestrian signals and installed improved synchronization to reduce delays and fuel consumption. They prepared and executed the signing for Annacis System and Phase I of the Coquihalla; installed Driver Information Displays at 11 sites on Routes 1, 3 and 5 and extended the coverage in preparation for Phase II of Coquihalla. Curve testing was completed over many major routes resulting in updating advisory signs and raising speed limits.

The Electrical Traffic Section installed over 3,200 high-pressure sodium street lights and designed, fabricated, tested and installed 71 traffic signal controllers. This section installed a computer-aided design system to speed up design and production of contract drawings with 95% production now computerized. New equipment permitted field electricians to test for malfunctions in signal controllers. Design and installation were completed on the ornamental illumination of Lions Gate Bridge and floodlights on the Alex Fraser Bridge.

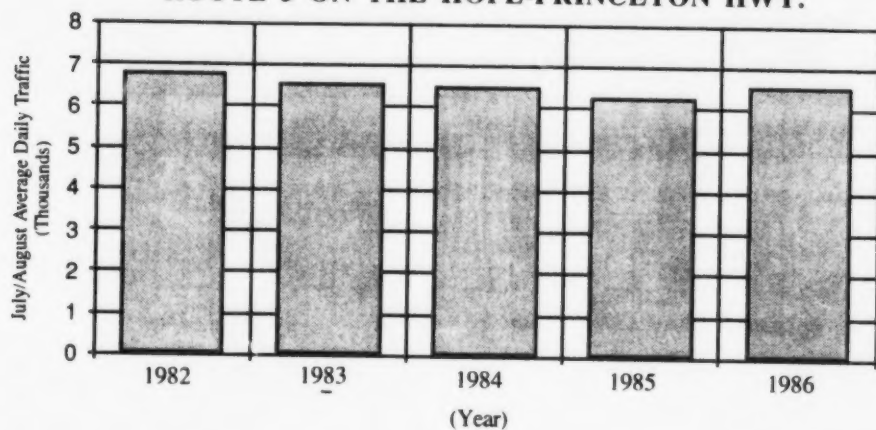
TRAFFIC STATISTICS PORT MANN BRIDGE



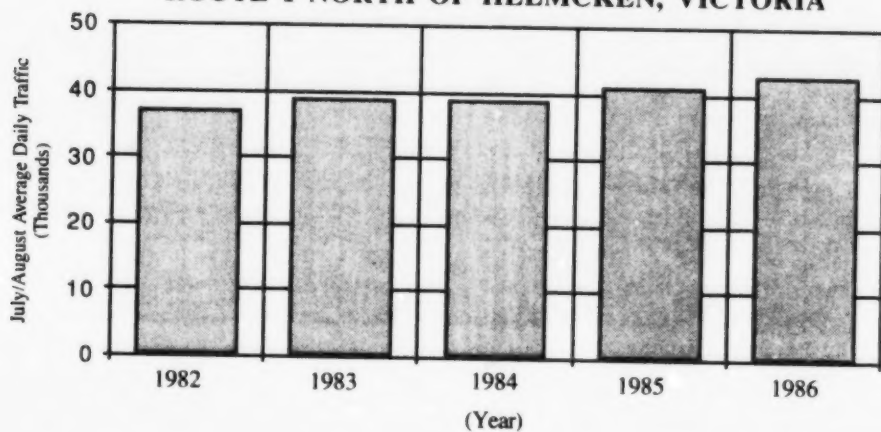
TRAFFIC STATISTICS ROUTE 1 WEST OF HOPE



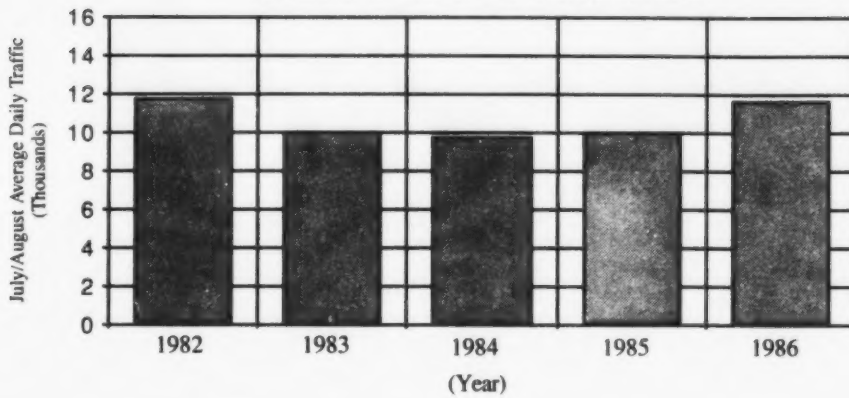
TRAFFIC STATISTICS **ROUTE 3 ON THE HOPE-PRINCETON HWY.**



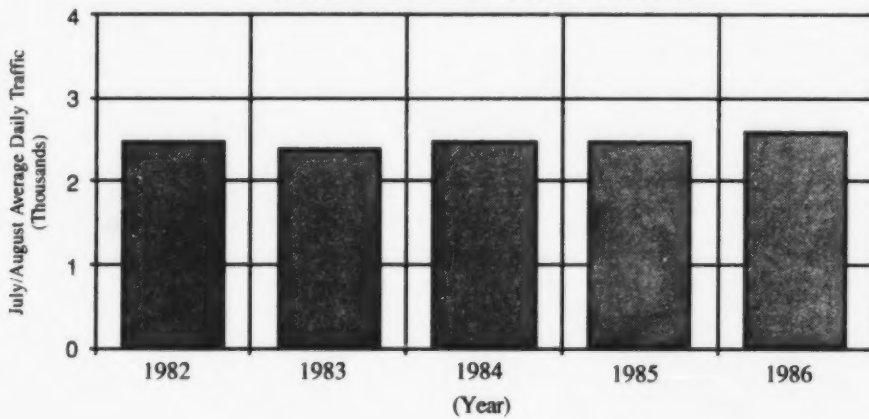
TRAFFIC STATISTICS **ROUTE 1 NORTH OF HELMCKEN, VICTORIA**



**TRAFFIC STATISTICS
ROUTE 1 EAST OF KAMLOOPS**



**TRAFFIC STATISTICS
ROUTE 16 AT FORT FRASER**



HIGHWAY PLANNING

The purpose of Highway Planning is to plan for future road needs, collect traffic users statistics and forecast and apply trends. The Annacis and Coquihalla Sections have responsibility for project coordination while the Municipal Section deals with grants for assistance in expanding municipalities, building and maintaining major routes. The Regulatory Approvals Section oversees the statutory responsibility delegated under the *Land Title Act* and deals with zoning, subdivision and access approvals. The Traffic Sections look after intersection designs, set speed limits, oversee signing policies and sign installation, design signal systems and controllers, illumination systems and a number of driver information displays.

The Highway Planning Section continued network planning in 17 communities as a background for decisions by Approving Officers.

Traffic volumes were measured at over 700 locations. The primary highway system was photologged using 35-mm camera to collect data relating to road roughness and geometrics. This process was later used to help plan the British Columbia segments of the Rick Hansen Man in Motion World Tour.

Alex Fraser Bridge and the Annacis system opened September 22, 1986 at a total cost of \$421,412,184 with expenditures of \$62,593,386 in 1986-87. Work continued on the Richmond Freeway.

Alex Fraser Bridge carried approximately 43,000 vehicles per day, 3,500 per hour in peak hours. The relief on Pattullo Bridge and Massey Tunnel was immediate with crossing time reduced by 10 to 25 minutes.

Railway relocations on Burlington Northern (4.1 km) and British Columbia Rail (1.2 km) completed and opened.

MAINTENANCE SERVICES

The 1986-87 Provincial road and bridge maintenance direct funding totalled \$209 million which was distributed via the work program performance budget. A minor betterment program of \$8,700,000 was undertaken for improvements to numerous local roads within the 37 Highway Districts.

A bridge day labour program, based on capital funding of \$5,000,000, was applied to upgrade or rebuild 50 substandard bridges throughout the Province. This funding was used primarily for minor bridges and the work was done by local bridge crews.

A fencing program of \$1,500,000 was undertaken from capital funds to upgrade old fencing and add new fencing on Schedule 2 highways throughout the Province.

The guardrail installation program from capital funds totalled \$1,500,000. This was used to provide roadside barriers in areas of high hazard.

Almost two million cubic metres of gravel materials were produced in the 47 crushing contracts at a cost of over \$9 million using about 1.5 million cubic metres for road maintenance, construction and for winter sand.

Major Provincial material supply contracts were prepared and awarded including 91,000 tonnes of salt and 18 million litres of dust palliatives.

Ten bridge steel repainting contracts totalling over \$1.1 million were called from headquarters and inspections by Regions.

The maintenance management program continued to provide reports on operations to assist in budget distribution, ongoing financial distribution/reconciliation and work program planning at the Provincial, Regional and District level.

The following is a brief summary of the changes to the inventory of roads, bridges and some selected features maintained over the year.

	1985-86	1986-87
Kilometres Road Open.....	42,264	42,798 (+ 1.3%)
Lane-Kilometre Pavement.....	42,201	43,507 (+ 3.1%)
Culverts	161,495	164,515 (+ 1.9%)
Sign Posts.....	100,321	103,834 (+ 3.5%)
Number of Bridges.....	2,746	2,763 (+ 0.6%)

An extensive hydroseeding program was again carried out throughout the Province totalling 5,295 hectares.

A total of 5,430 kilometres of highway shoulder was sterilized and approximately 5,550 hectares of right of way checked and/or treated for noxious weed infestation.

The Expo 86 floral display berms established last year in the Lower Mainland were replanted and maintained during Expo year. In addition, 52 "Mini" pre-cast concrete promotional displays were installed on landscaped berms throughout the Province where they were well received by tourists and the communities involved.

Major landscape projects were tendered on the Annacis Highway, the Nicola and Coldwater Interchange in Merritt, the Highway 1 and 3 Interchange in Hope and the Capehorn Interchange in Coquitlam, and at seven other locations with tenders totalling \$1,875,000.

Six communities participated in a cost sharing arterial beautification program totalling \$129,000.

Two new rest areas near Dease Lake and Salmon Arm were added to the 160 existing facilities, while depleted gravel pits were rehabilitated and seeded in four locations.

Snow avalanche activity was below average in most areas due to stable snowpacks and favourable weather.

The snow, weather and avalanche reporting network continued to operate well and provide the necessary input for avalanche hazard forecasting.

Training in hazard forecasting, safety and rescue measures and avalanche awareness continued.

The avalanche hazard evaluation of existing and proposed ski areas, in conjunction with other agencies, expanded over the past year.

On the Coquihalla Highway, artillery is being installed to propagate avalanches under controlled conditions. Ropeway technology, new to North America, will also transport explosives to the avalanche starting zone where the charges will be detonated by radio signal.

In 1986 record production was achieved by most crews working longer days, enjoying favourable weather and through the use of the new stripping machines which have proven to be more efficient and productive.

Statistics on the road markings completed this past year and a comparison with the previous year follows:

	Previous Year 1985-86	Current Year 1986-87
<i>Painting</i>		
Kilometres of Centreline, Edge and Lane Lines Painted	21,798 km	22,979 km
Kilometres of Prelining	1,938 km	3,502 km
Other Markings.....	2,961	4,230

Thermoplastic Markings

Centreline, Edge and Lane Line in Plastic.....	208 km	331 km
Plastic Laid.....	9,935 m ²	14,549 m ²
Other Markings.....	4,882	7,030
<i>Catseyes and Reflective Road Markings</i>	78,781	83,991
<i>Material Usage</i>		
Paint.....	1,012,184 L	1,070,571 L
Thermoplastic.....	118,938 kg	125,265 kg

EQUIPMENT SERVICES

Many members of the Equipment Services Section assisted in the display of a restored Cat 60 Snow Plow unit from Stewart, a restored 1935 Chev dump truck from Saturna Island, a tandem dump truck converted to run on diesel and/or natural gas and our large 6×6 truck for which we have developed computerized sander controls.

1,019,304 man-hours were expended on all aspects of equipment maintenance and repair. 12,272,000 litres of gasoline and 16,393,000 litres of diesel fuel were used. Eight graders, 11 loaders, 101 heavy trucks, 28 automobiles and 198 light trucks were purchased in 1986-87.

New garages opened at Merritt, Coldwater and Delta.

In the Marine Section, the Clayhurst Ferry as well as the North Bend Aerial Ferry were replaced by bridges. The inland ferry fleet carried 2,708,366 vehicles and 5,290,311 passengers on 16 inland routes.

Expenditures totalled \$11,437,307.

Eight traveller's information message systems were installed between Rosedale and Merritt and four additional mountain top repeaters were provided by the Communications Section operating out of the radio system control centre in Burnaby.

The shop produced a heavy load of signs for the Coquihalla, Alex Fraser Bridge projects and Expo 86 routing projects. All together, there were 49,178 signs produced with a total area of 21,799 square metres.

HIGHWAY DISTRICT OPERATIONS

Region 1 — The Lower Mainland

Three major events — Expo 86, Coquihalla Phase I and the Alex Fraser Bridge — influenced much of the activity in the Region in 1986-87. Ministry personnel found the deadlines associated with these projects an exciting challenge. Increased traffic volumes also dictated changes to normal work practices and schedules. A Provincial communications centre was established to coordinate internal Ministry and public communications and information. Highlights from the Districts:

1. New Westminster District

Maintenance operations concentrated on roadside items, such as grass cutting and litter pickup, and less on pavement work due to Expo traffic volumes. A program of extended counter-flow operations at Massey Tunnel was instituted to help Expo-bound visitors from the border. More work than usual had to be done at night. A new maintenance operation (Delta), working out of the new Delta Yard, was begun with the opening of the Alex Fraser Bridge and the related freeways.

Day labour construction completed the widening of Highway 15, completed a four-lane section of Highway 10, continued work at King George Highway and 128th Street and completed numerous intersection improvements and recapping projects.

2. North Vancouver District

The mild winter eliminated many of the previous problems experienced along Highway 99 and throughout the District such as rock slides, debris torrents and flooding in the Pemberton Valley. Capital projects continue to improve the Squamish Highway between Horseshoe Bay and Britannia Beach. Paving of the road from Mt. Currie to D'Arcy was begun and a four-lane section south of Whistler at Brandywine was completed.

3. Chilliwack District

Major capital projects were finished on Highways 1, 3 and 5 and turned over to the District this year. The Hope foreman area was expanded to become the largest in the Region. The Coquihalla opening was a gala event, and the moderate winter weather gave crews a good opportunity to get used to the characteristics of the roadway without inconvenience to the public. The changeable message signs for the three routes worked well. The interchanges added to Highway 1, in the Upper Fraser Valley, increased the capacity and safety of the system.

Region 2 — Kamloops-Okanagan

Maintenance

Scheduled maintenance was carried out in all areas of the Region. A number of small local contracts was tendered by Districts and two major cracksealing contracts were called and administered by Region. Phase I of the Coquihalla Highway system was opened on May 16th, with maintenance carried out by the newly established Coldwater crew. Snowfall was below normal throughout the Region, however sand/salt applications increased due to the many freeze-thaw cycles created by the milder temperatures.

Construction

All Districts had extensive day labour programs. Major four-laning construction projects were undertaken on Highway 97 north of Penticton, and between Clinton and 100 Mile House. Construction of tote roads to access Phases II and III of the Coquihalla was also carried out by District crews. Upgrading and surfacing of gravel roads with a graded seal program was a high priority in most Districts.

Bridges

Several bridges, varying from one to three spans, were constructed by District crews using concrete box beam stringers. A major project of sandblasting and painting the steel super and substructure of the Lytton Bridge was carried out by the Regional Bridge Paint crew.

Region 3 — The Kootenays

In all Districts, emphasis was placed on improved ditching and surface maintenance with contracts called for cracksealing, patch paving and sealcoating. The mild winter resulted in high use of salt throughout the Region, with quantities running 50% higher than normal. Overall snowfall, however, was down with the Kootenay Pass section of Highway 3, the highest highway pass in Canada, receiving a total of only 744 centimetres of snow, the third lowest total on record.

Flooding occurred in several areas of the Region during May, resulting in repair expenditures of \$135,000 in the New Denver District and collapse of a 30-metre section of the St. Mary's River Bridge in the Cranbrook District. Temporary repairs were effected, using Bailey bridging. During this period, the Revelstoke District had to close Highway 1 east of Revelstoke for two days due to a debris flow which affected both the Highway and the adjacent CPR mainline.

The Nelson District continued work on Highway 3A, Nelson-Balfour section eliminating some of the poorly aligned sections.

Cranbrook District continued their sealcoating program with an additional 27 kilometres of rural subdivision road being treated.

Golden District embarked on a program of intersection improvements in the Invermere area and also constructed the west approach fill for the new Athalmer Bridge, the balance of the work being done by contract. The District also erected a new style fence along a high density wildlife section of Highway 93/95 in conjunction with the Ministry of Environment and Lands and the landowners using smooth wire and barrier tape as a top rail.

Region 4 — Northern British Columbia

Maintenance

Following a relatively mild winter throughout most of Region 4, spring continued in a similar manner, with warm temperatures causing relatively sudden run-off in most areas.

The eastern portion of Prince George District, and McBride District, which had heavy rains coincident with the warm temperatures, bore the brunt of run-off thus created, and one kilometre of the Upper Fraser Road was inundated for one week, necessitating the ferrying of residents. In McBride, concurrently, a large mud slide closed Mountain View Road for four days, and the Dore River overflowed its banks and created an emergency situation. Fortunately the bridge and highway were undamaged, although 8,000 cubic metres of rip rap was washed from the river channel.

The generally good summer allowed Districts ample opportunity to undertake extensive crack sealing and machine patching.

This past winter was extremely mild throughout the Region, with minimal snowfall. This, however, translated into above average use of sand and de-icers. The many freeze-thaw cycles taxed the crews' abilities to predict road conditions, and also caused more pavement damage than normal.

Construction

Once again, the good summer assisted in achieving many improvements throughout the Region. Of particular note was the start of reconstruction of the Hart Highway between Bear Lake and Kerry Lake, and also the extension of the Hutton Road toward Longworth, where some seven kilometres of new subgrade were completed. Much progress was also made on the new Yellowhead Bridge approaches in Prince George. In Quesnel, the Bouchie Lake Hill was four-laned and paved along with 59 kilometres of new pavement on the Nazko Road. On the Heritage Highway, between Fellers Heights and Tumbler Ridge, 25 kilometres of grade were reconstructed with significant improvement in alignment, and an additional 23 kilometres were cleared, grubbed and burned. Fort St. John District concentrated on intersection improvements on the Alaska Highway between the city and Charlie Lake, prior to the repaving of that section. A total of 302 kilometres of rural roads was also regravelled with crushed granular surfacing. In the Williams Lake District, 29.2 kilometres of the Bella Coola Highway 20 were either reconstructed or widened and gravelled.

Bridges

Construction of the new 500-metre Yellowhead Bridge crossing the Fraser River on Highway 16 within the City of Prince George continued, with the mild winter easing conditions for the contractor. The new 294.5-metre Clayhurst Bridge across the Peace River, adjacent to the Alberta border, was completed and opened, thus ending the operation of the Clayhurst ferry, a tug and barge type which was in service for 38 years. The Pack River Bridge on the Carp Lake Road (near McLeod Lake) was destroyed by fire

in May, and immediate replacement was completed using 61 metres of Bailey Bridge. Access for wide loads across the Blueberry River north of Fort St. John was enhanced dramatically with the completion of the contractor-constructed Apsasson Bridge, and with the modification to the deck-over configuration of Bailey on the Blueberry Bridge. In addition to the above, 14 other bridges were reconstructed throughout the Region.

Buildings

A new six-bay shop, loading ramp, salt storage shed and fuel shed were constructed to complete a new maintenance establishment for the McBride area of that District.

Region 5 — Northwest B.C.

Maintenance

Throughout the Terrace Region there were continuing efforts in pavement maintenance and improvements to drainage works. The Cassiar Highway 37 received some major regravelling north of Meziadin Junction.

Major flooding occurred in June 1986, in the Smithers District. Ten log stringer bridges were lost. Four of the structures were replaced by three new structures and two Bailey bridges were installed, two multiplates constructed and two bridges not replaced. Total cost of repairs amounted to \$500,000.

Winter weather consisted of above normal precipitation with above normal temperatures, the warmest on record for the Stewart area. No avalanche activity affected Highway 16 in the Terrace District. However, 594 avalanches were recorded in the Bear Pass, 90 of which reached or crossed the highway.

The mild, wet, winter produced frequent icing conditions, and combined with increased truck activity in the Stewart-Meziadin area, produced extensive spring pavement damage. Break-up was also severe in the Hazelton and Kitwanga areas, necessitating \$100,000 in emergency repairs.

Construction

Major day labour construction activities were of a continuing nature throughout the Region, including graded aggregate seal in Burns Lake, the Tyee-Fisher Road loop in Smithers and the Cassiar Access Road in Dease Lake. Prior to repaving Highway 16 east of Terrace to the District boundary, all major intersections were reconstructed. A large realignment project was undertaken at Summit Sloughs on Highway 37A to reduce the avalanche risk. Finally, Minette Bridge in Terrace and Bulkley Bridge in Burns Lake were constructed.

Region 6 — Vancouver Island

Maintenance

A total of 152 kilometres of gravel roads throughout the Districts was sealcoated. Ditching, machine patching and brush cutting were also given high priority. Nanaimo District regavelled 40 kilometres of side roads. Good weather during the winter months resulted in relatively few winter activities.

Construction

Several day labour projects were completed, including the following: 1.2 kilometres of Millstream Road, Saanich District; Holberg Road (Port Hardy area) — an extensive gravelling and grading program over 30 kilometres; Dickens Road, Lantzville — repaved, together with paved shoulders; major reconstruction started on South Shore Road, Lake Cowichan.

Bridges

Major works were carried out on two bridges on Highway 4; Sproat Falls Bridge was redecked, widened and a sidewalk was added; paved approaches were completed for the new Kerr Creek Bridge. The upkeep of the timber bridges on Highway 14, between Sooke and Port Renfrew, was continued. Hawkins Bridge, Nanaimo District, was rebuilt with concrete box stringers. A new bridge was built at Gorge Hill, Cortes Island, and an Acrow bridge was constructed at Village Bay Lake, Quadra Island; while at Lupin Creek, on the Western Mines Road, Courtenay District; a large pipe arch culvert was installed.



TRANSPORTATION POLICY

TRANSPORTATION POLICY

TRANSPORTATION POLICY BRANCH

The Transportation Policy Branch develops transportation policy options and assesses federal initiatives affecting British Columbia. The Branch also provides financial assistance for improvements to community airports and for certain services operated by the British Columbia Railway Company.

Through the Air Transport Assistance Program, \$2,822,240 in grants were provided for improvements to airports at 12 communities throughout the Province including trials of microwave landing systems at Nanaimo and Pemberton.

Staff participated in a review of Motor Carrier Regulations and the Weiler Commission regarding the "container clause" in the collective agreement for Vancouver longshoremen.

A total of \$13,611,073 was provided to the British Columbia Railway for rail passenger service and the Fort Nelson Extension. This assistance was used to offset operating losses, rehabilitate passenger cars, and make track improvements on the extension.

INFORMATION SYSTEMS

Wang VS 85 and 65 computers were installed in the headquarters data centre for production and development systems. At year-end there were 82 users on these machines.

The Coquihalla Revenue System was installed to collect and account for tolls. At year-end, work was under way to extend the system for acceptance of Visa and MasterCard for tolls.

A consultant recommended future direction and a pilot project was begun to create a highway database that would record all road related information using up-to-date technology.

A pilot version of the material management system was installed at 28 locations around the Province for testing and evaluation. A preventive maintenance scheduling system was installed at nine test sites for evaluation of new maintenance planning and management systems.

The branch handled 901 requests for service, of which 376 were for telecommunications services. Approximately one third of the \$11,419,600 expended went to British Columbia Systems, with the balance flowing directly to the private sector.

The B.C.-Alberta Communications link pilot project was implemented for the Motor Vehicle network Canada Wide. A new personalized number plate system was developed and implemented. Also, a Transportation Information Resource Planning project was completed and reports made on the process to Treasury Board staff. The Automated Vehicle Inspection System was successfully implemented and the Single Application Vehicle Registration system design was completed. Also, a study was completed looking at future network requirements including the cost effectiveness of satellite and radio communication for remote and mobile operations.

Savings of up to 40% were realized in some production processing allowing the Ministry to operate new systems without increases in funding.

A system acquisition freeze was imposed by the Treasury Board in August 1986 and increased levels of activity were accomplished without major increases in staff levels.

AIR TRANSPORT ASSISTANCE PROGRAM (1986-87 GRANTS)

Location	Amount (\$)	Description
Atlin	50,000	Minor upgrading. Design for runway lighting system.
Bella Bella (Denny Island)	451,568	Pave 900-metre runway, taxiway and apron. Install powerline.
Creston	8,000	Purchase and installation of modular building.
Dease Lake	100,000	Design and build an air terminal building with provision for Atmospheric Environment Services.
Fairmont Hot Springs	565,567	Pave 1,800-metre runway, taxiway, aprons and access road.
Grand Forks	325,585	Repave 1,300-metre runway, taxiway and apron.
Merritt	75,000	Design and build an air terminal building.
108 Mile	200,000	Design and install a runway lighting system.
Pemberton	400,000	Complete the installation of a microwave landing system (MLS).
Salmon Arm	25,000	Conduct a feasibility study for MLS.
Tumbler Ridge	450,000	Complete the construction of a 1,200-metre gravel runway.
Valemount	99,096	Supply and install Bailey type bridge on access road.
Windsocks	33,423	Purchase and overhaul of 80 windsocks from Expo 86.
B.C.A.C.	39,000	Grant to Airport Owners and Operators Division to cover expenses.
Total	2,822,240	

MOTOR CARRIER BRANCH

The activities of this Branch are recorded in the Annual Report of the Motor Carrier Commission published under separate cover.

FINANCIAL ASSISTANCE TO THE BCR

Passenger Service	Fort Nelson Extension
Operating assistance..... 2.5 million	Operating assistance..... 3.75 million
Equipment improvements..... 0.8 million	Rehabilitation..... 6.56 million
	\$13.61 million

CONTRIBUTION TO THE BRITISH COLUMBIA FERRY CORPORATION

The Transportation Policy Branch administers a contribution to the British Columbia Ferry Corporation, including lease payments and related administrative costs for ferries leased to and operated by the Corporation. Total expenditures in 1986/87 fiscal year amounted to \$61,821,300.00.

ENGINEERING AND INSPECTION

The Engineering and Inspection Branch conducted operating inspections of the Mono-rail, Gondola, HSST and people mover at the Expo site.

The branch completed the Aerial Tramway Information System (ATIS) and reviewed the "Foisy Report" recommendations as a result of the CNR, Hinton, Alberta head-on train collision February 1986 to ascertain their appropriateness to Provincial railways.

One hundred twelve Health and Safety Inspections were conducted on the two common carrier railways and the ALRT.

**Legislative Acts Under Jurisdiction of
Ministry of Transportation and Highways — November 1987**

British Columbia Railway Act

Commercial Transport Act

Coquihalla Highway Construction Acceleration Act

Ferry Act

Ferry Corporation Act

Highway Act

Highway (Industrial) Act

Highway Scenic Improvement Act

Ministry of Transportation and Highways Act

Section 59 — comes under Provincial Secretary

Sections 61-67 — come under Attorney General

Motor Carrier Act

Motor Vehicle Act

Pipeline Act

Railway Act

Riverbank Protection Act

Transportation of Dangerous Goods Act

Motor Vehicle (All Terrain) Act

Comes under Environment and Parks but Superintendent of Motor Vehicles directly involved.



MOTOR VEHICLE DEPARTMENT



MOTOR VEHICLE DEPARTMENT

It will be noted that the constant growth in the number of vehicle registrations and licensed drivers continued unabated during 1986.

The Department was again faced with the necessity of providing increased service through the Motor Licence offices, Weigh Scales and through the Head Office operations.

Programs administered by the Motor Vehicle Department impact the public and industry as the manufacturing and resource industry relies heavily on the services of the motor carrier industry.

Safety of all road users was again in the forefront during 1986. With the accident, injury and fatality rate increasing, new solutions must be found to make our highways safer.

Activities of the Department are dealt with under the following headings:

- Vehicle and Driver's Licensing Branch

- Standards and Compliance Branch

- Summary of Revenue Collected All Sources for the Licence Period January 1 to December 31, 1987

- Summary of Revenue Collected *Motor Vehicle, Commercial Transport and Motor Vehicle (All Terrain) Act*, Fiscal year ending March 31, 1987

- Motor Vehicle Accident Frequencies — January 1, 1986 to December 31, 1986

- Analysis of Drivers Licensed by Classification — January 1, 1986 to December 31, 1986

VEHICLE AND DRIVERS LICENSING

In 1986, the Vehicle and Drivers Licensing Branch licensed 2,483,161 motor vehicles between January 1 and December 31. Revenues collected during the licensing period under the *Motor Vehicle Act, Commercial Transport Act, Social Services Tax Act, Insurance (Motor Vehicle) Act* and the *Motive Fuel Tax Act* was \$142,044,087.90. The Public Accounts revenue collection for the period of April 1986 to March 1987 was \$116,321,485. The Branch coordinates licence and insurance programs affecting the Motor Vehicle Department, examines an applicant's ability to safely operate a class of motor vehicle, issue driver's licences and British Columbia Identification Cards, administers the driver medical review program, develops and administers the Driver Improvement Program, compiles and records traffic incident reports, maintains individual driving records, and licences Driver Training School operators and instructors.

There are 34 Motor Licence Offices, six Government Agents and 77 Motor Vehicle Department Appointed Agents in remote areas where the population is not sufficient to warrant a Motor Licence Office.

During the year, a new Motor Licence Office was opened in Langley to serve the Fraser Valley and the Motor Licence Office in Abbotsford was relocated to larger, more accessible premises at Abbot Square.

Original driver's licences issued during the calendar year totalled 68,298, an increase of 4,802 over 1985.

British Columbia Identification Cards issued during 1986 totalled 17,073, an increase of 1,554 over 1985.

The current Medical Program requires a medical report to be submitted by a driver's physician at designated age levels for each class of licence. During 1986, medical reports on 44,133 drivers were reviewed and 4,802 drivers were denied driving privileges based on their medical condition or substandard vision.

The Driver Improvement Section continued the screening of unsatisfactory driving records, to ensure that drivers whose actions become hazardous as the result of alcohol involvement and other dangerous driving practices are either corrected or removed from the highway.

STANDARDS AND COMPLIANCE

Effective October 1, 1986, all taxis, buses, school buses, commercial trailers and large vehicles with a licensed gross vehicle weight of over 17,300 kilograms were required to be submitted semi-annually to a designated inspection facility for examination by an authorized inspector. The inspector determines if the vehicles meet the standards of safety and repair for highway vehicles. There are 65,683 vehicles in the program. Privately owned repair facilities were designated by the Superintendent of Motor Vehicles throughout British Columbia to carry out the required semi-annual inspection program.

An alternate fleet program was designed for companies demonstrating responsibility for their own vehicle maintenance. A total of 411 companies qualified for this alternate program. Regular monitoring will provide statistical evaluation of the program's effectiveness.

At the request of police, the Vehicle Inspection Division carried out mechanical inspections on 1,585 vehicles involved in fatal or near fatal accidents. These examinations and subsequent expert testimony provided extensive support to police agencies during formal judicial proceedings.

There were 216 roadside audit inspections conducted during the year. In many cases these were carried out in cooperation with the RCMP and other enforcement agencies on randomly selected commercial vehicles to determine their compliance with the standards of safety, maintenance and repair. Where vehicles met the requirements of the Commercial Vehicle Safety Alliance, a CVSA decal was issued.

Random road checks resulted in 5,120 commercial vehicles being checked, of which 1,312 (26%) passed, 2,075 (40%) required minor repairs and 1,733 (34%) being removed from the highway for critical mechanical defects.

Sixty thousand eighty-seven inspections were conducted during 1986 — 3,122 school bus permits were reissued with 468 new permits issued for a total of 3,590; 173 permits were cancelled.

In 1986, there were 134 reportable school bus accidents in which there were two deaths and 42 injuries.

Commercial Transport operates 40 permanent weigh scales located at strategic points on major British Columbia highways and 19 portable patrol units for the monitoring of commercial vehicles.

In addition, they assist industry in meeting statutory requirements, enforce all pertinent vehicle laws and issue permits to accommodate extraordinary moves of specialized equipment, with set guidelines and conditions to ensure public safety.

During the fiscal year, the Pattullo Bridge and Kamloops South Weigh Scale buildings were demolished to make way for the upgrading of the King George Highway/Scott Road intersection and the Coquihalla Highway respectively.

A new weigh scale facility was constructed at the south (Delta) end of the new Alex Fraser Bridge (Nordel). This facility was designed to become the information centre for the commercial transport industry in the Lower Mainland area including the testing of new vehicle configurations for offtracking, load sweep and other safety related concerns respecting overlength loads and vehicles.

The building and weigh scale at the Pacific border crossing on Highway 15 were replaced to improve service to the trucking industry.

During the year 2,540,501 vehicles were processed at weigh scales and by portable patrols. As a result of these inspections 30,876 traffic tickets and 9,893 violation notices (warnings) were issued. Indicated penalty revenue was \$2,149,890. Total number of permits issued was 157,182 with revenue of \$4,875,212.

The Annual Motor Vehicle Statistical Analysis Report, which provided a clear and composite record of motor vehicle accidents in British Columbia, was favourably received with many requests for additional copies.

The year ended with 599 fatalities recorded; an increase of 116 over 1985. The total number of accidents also showed a 10% increase over 1985.

The Internal Audit Section became fully operational during 1986 with a total of 19 audits completed on 10 appointed agents, five Motor Licence Offices, one weigh scale, one appointed agency which was opened and one which had closed.

Procedural reviews were also conducted on weigh scale accounting, NSF cheques, cash discrepancies, fee collection systems, revenue record accounts receivable procedures and the collection and depositing of U.S. dollars.

SUMMARY OF REVENUE COLLECTED UNDER THE *MOTOR VEHICLE ACT*, *COMMERCIAL TRANSPORT ACT* AND *MOTOR VEHICLE (ALL TERRAIN) ACT* FOR THE LICENCE PERIOD OF JANUARY 1, 1986 TO DECEMBER 31, 1986

<i>Revenue Source</i>		
	1985	1986
	\$	\$
Revenue collected and reported directly to the Motor Vehicle Department for the licence period of January 1, 1986 to December 31, 1986	22,401,202.85	22,701,271.90
Licence Revenue accounted through the Vehicle Licence and Insurance Program by the Insurance Corporation on behalf of the Motor Vehicle Department for the licence period of January 1, 1986 to December 31, 1986	115,033,703.00	119,342,816.00
Total	<u>137,434,905.85</u>	<u>142,044,087.90</u>
Public Accounts Revenue Collected (Fiscal Year)	124,191,583.00	116,321,485.00

Social Service Tax is collected on the sale of vehicles. During 1986 the amount of \$29,076,142.26 was collected through the Insurance Corporation of British Columbia and accounted directly to the Ministry of Finance.

Motor Vehicle Act—Revenue Source

VEHICLE	1985	1986
<i>Licence Fees</i>	\$	\$
Passenger	46,882,122.00	48,229,226.00
Motor Cycles	761,634.00	746,770.00
Utility Trailer	2,260,407.00	2,488,315.00
Demonstration Vehicles/Motor Cycles	576,053.00	1,062,289.00
Transporter	28,993.00	65,964.00
Manufacturer	5,019.00	6,475.00
Repairman	154,623.00	284,284.00
Vintage	10,046.50	13,571.00
Dealers Interim	50,130.00	49,815.00
Personalized	249,069.00	341,901.00
Sub-total	50,978,096.50	53,288,610.00
<i>General Fees</i>		
New Plate Fee	1,679,594.00	1,857,660.00
Notice of Transfer of Ownership	3,797,014.00	3,913,368.00
Duplicate Certificates	506,745.00	567,091.00
New Vehicle Registration	789,364.00	851,327.00
Decal Replacement/Plate Substitution	292,543.00	226,318.00
Search of Vehicle Records	472,891.03	508,509.20
Plate Transfer	443,992.00	469,066.00
F R Filing Fee	17,740.52	—
Sub-total	7,999,883.55	8,393,339.20
<i>Permit Fees</i>		
Temporary Operation	316,212.00	315,281.00
Temporary Testing and Demonstration	491,671.00	514,560.00
Sub-total	807,883.00	829,841.00
<i>Other</i>		
NSF Service Charges	4,007.47	4,455.00
Special Line Charges	15,029.94	26,959.00
Suspense (not allocated)	624.32	(147.52)
Suspense (refunds)	2,653.10	4,114.95
Miscellaneous	1,837.39	4,135.90
Exchange Account	15,611.72	9,992.68
Recycling	22,437.07	44,491.59
NRCP Motive Fuel Expo	—	16,935.00
New Vehicle Information Statements	—	19,039.54
Sub-total	62,201.01	129,976.14
Total Vehicle Revenue	59,848,064.06	62,641,766.34

Motor Vehicle Act—Revenue Source

DRIVERS	1985	1986
<i>Licence Fees</i>	\$	\$
Originals	4,644,594.90	5,129,477.62
Duplicates	386,041.49	394,800.56
Industrial Air Certificates	300.00	315.00
Driving School Licences	5,210.00	5,180.00
Sub-total	5,036,146.39	5,529,773.18
<i>General Fees</i>		
Identification Cards	78,218.00	91,426.00
Air Brake Manuals	28,603.00	27,446.00
Driver Examination Medical Appeals	1,615.00	2,350.00
Driver Examination Fee	1,287,902.00	1,330,780.00
Driver Record Search	22,225.91	24,091.14
Reinstatement Fees	817,400.00	748,425.00
Sub-total	2,235,963.91	2,224,518.14
Total Driver Licence Revenue	7,272,110.30	7,754,291.32
 Total Motor Vehicle Act	 67,120,174.36	 70,396,057.66

Commercial Transport Act—Revenue Source

	1985	1986
<i>Licence Fees</i>	\$	\$
Commercial	55,519,998.00	56,371,113.00
Trailers	442,678.00	452,328.00
Trailer Floater	276,632.00	617,234.00
Prorate and Reciprocity	2,669,336.49	2,742,460.32
Special Agreement Licences	1,123.00	62,679.00
Sub-total	58,909,767.49	60,245,811.32
<i>General Fees</i>		
New Plate	533,417.00	581,971.00
New Vehicle Registration	216,057.00	244,536.00
Decal Replacement/Plate Substitution	89,910.00	53,668.00
Sub-total	839,384.00	880,175.00
<i>Permit Fees</i>		
Temporary Operation	347,767.50	328,214.94
Temporary Testing and Demonstration	201,003.00	197,472.00
Non Resident Commercial	1,769,786.00	1,872,190.00
Oversize/Overweight and Highway Crossing	2,598,212.21	2,616,920.29
Commercial Trans Trust Account	29,127.00	65,190.00
Sub-total	4,945,895.71	5,079,987.23
Commercial Vehicle Inspection	—	254,433.82
 Total Commercial Transport Act	 64,695,047.20	 66,460,407.37

All Terrain Vehicle Act—Revenue Source

	1985	1986
	\$	\$
Licence Fees	<u>6,753.50</u>	<u>4,661.00</u>

Motor Carrier Act—Revenue Source

Total Motor Carrier Act	996.00	3,194.00
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Summary of Revenue

Motor Vehicle Act	67,120,174.36	70,396,057.66
Commercial Transport Act	64,695,047.20	66,460,407.37
All Terrain Vehicle Act	6,753.50	4,661.00
Motor Carrier Act	<u>996.00</u>	<u>3,194.00</u>
Sub-total	<u>131,822,971.06</u>	<u>136,864,320.03</u>
Total	<u>131,822,971.06</u>	<u>136,864,320.03</u>

Other Revenues collected by the Motor Vehicle Department in conjunction with the licensing programs on behalf of the Ministry of Finance and the Insurance Corporation of British Columbia.

Ministry of Finance

Social Service Tax Act	2,148,830.12	1,864,055.45
Motive Fuel Use Tax Act	<u>538,104.38</u>	<u>518,050.29</u>
Sub-total	2,686,934.50	2,382,105.74
Insurance Corporation of British Columbia	<u>2,925,000.29</u>	<u>2,797,662.13</u>
Sub-total	2,925,000.29	2,797,662.13
Total Other Revenues	<u>5,611,934.79</u>	<u>5,179,767.87</u>
Total Revenue Collected	<u>137,434,905.85</u>	<u>142,044,087.90</u>

REFUNDS

Legislation provides for the refunding of licence fees where licence plates are surrendered to the Superintendent. A person who was allocated motor vehicle licence plates for use on a vehicle registered in his name can, upon disposal of the vehicle, retain, destroy or attach the number plates to a substitute vehicle, or surrender them to the Superintendent, together with an application for refund of fees.

Refunds for motor vehicle licence plates are granted on the basis of the unexpired portion of the licence year, but no refund is made of an amount less than \$5.

On reassignment of the motor vehicle plates to a substitute vehicle, no refund is granted if the combined licence and insurance fee is less than \$5.

The following summary sets out the amount of money refunded for the 1986 calendar year.

1986 Refund Statistics—January 1, 1986 to December 31, 1986

Type of Refund	Number	Amount
<i>General Refunds</i>		\$
<i>Motor Vehicle Act</i>		
Passenger Vehicles	72	1,262.50
Drivers	174	1,133.70
MVD Code Suspende	485	3,862.32
Monthly % ICBC	14	4,226,943.00
Search Fees	220	1,664.26
Search Fee Accounts	164	13,903.43
Personalized Number Plates	253	12,664.00
Reinstatement Fees	21	1,025.00
Financial Responsibility	77	908.34
Motor Vehicle Inspection	60	5,884.00
ICBC Debt Coll. Batches	168	74,358.15
Medical Appeals	35	1,750.00
Foreign Exchange	—	—
Dishonoured Cheques	5	55.00
Dishonoured Cheque Fee	2	15.00
ICBC Permit Trans.	24	434.00
Miscellaneous Revenue	29	603.00
Total	1,803	4,346,465.70
<i>Commercial Transport Act</i>		
Commercial Vehicles	76	1,301.78
Monthly % ICBC	13	3,832,025.00
Prorate Fees	408	187,447.53
Weigh Scale	5	576.92
Weigh Scale Trust Account	24	9,011.35
ICBC Permit Trans.	—	—
Total	526	4,036,362.58
<i>MV (All Terrain) Act</i>		
Permits	1	5.00
Total	1	5.00
Grand Total (All Acts)	2,330	8,382,833.28

Licensed Vehicles During 1986

	1985	1986	Increase	%
Passenger Vehicles.....	1,511,824	1,571,039	59,215	3.92
Commercial Vehicles:				
Regular Commercial.....	527,085	537,017	9,932	1.88
(A) Farm Trucks.....	24,140	23,052	(1,088)	(4.51)
(F) Farm Tractors.....	301	231	(70)	(23.26)
(P) Prorate.....	3,436	4,648	1,212	35.27
(T) Logging.....	2,927	3,238	311	10.63
(X) Industrial.....	6,066	5,792	(274)	(4.52)
TOTAL COMMERCIAL.....	563,955	573,978	10,023	1.78
Commercial Trailers.....	40,739	44,362	3,623	8.89
Utility Trailers.....	217,331	216,082	(1,249)	(.57)
Motor Cycles.....	79,876	77,700	(2,176)	(2.72)
TOTAL VEHICLES.....	<u>2,413,725</u>	<u>2,483,161</u>	<u>69,436</u>	<u>2.88</u>

Motor Vehicle Traffic Accident Frequencies — 1977 to 1986

Year	Total Vehicles Licenced During Year	Number of Accidents	Accidents Per 1,000 Vehicles Licenced	Deaths	Deaths Per 10,000 Vehicles Licenced	Deaths Per 100 Million Km Travelled	Injuries	Injuries Per Million Km Travelled
1977	not available	115,046	not available	718	not available	3.3	31,942	14.7
1978	not available	112,635	not available	640	not available	2.7	33,105	14.0
1979	not available	123,863	not available	738	not available	2.9	37,809	14.9
1980	not available	143,577	not available	811	not available	3.0	41,500	15.2
1981	not available	127,831*	not available	859	not available	3.0	44,123	15.2
1982	2,331,760	111,868*	48.0	601	2.6	2.2	33,807	12.6
1983	2,339,690	102,065*	43.6	607	2.6	2.2	31,855	11.7
1984	2,366,852	98,506*	41.6	525	2.2	1.9	32,407	11.9
1985	2,413,725	102,928*	42.6	483	2.0	1.9	34,368	13.4
1986	2,483,161	113,042*	45.5	599	2.4	2.3	40,378	15.4

In 1986 there were 514 fatal incidents in which 599 victims were killed. Also, during this year 40,378 victims were injured in 28,624 casualty accidents.
 * The number of accidents occurring between 1981 and 1986 cannot be compared to previous years because the reporting level for property damage only accidents was raised January 1, 1981 from \$200.00 to \$400.00. This has significantly reduced the number of accidents reported since 1981.

Deaths and injuries per 100 million km were recalculated for all years in 1985, using more accurate conversion factors than were previously available. These figures reflect passenger car travel only.
 The figures involving vehicles licenced were recalculated for all years in 1986, based on vehicles licenced throughout the year, as opposed to vehicles licenced at December 31.

1986 Accidents and Victims by Month

Month	Accidents				Victims		
	Property Damage	Injury	Fatal	Total Accidents	Injury	Fatal	Total Victims
January	6,471	2,026	25	8,522	2,813	25	2,838
February	6,573	1,980	23	8,576	2,690	28	2,718
March	5,969	1,907	32	7,908	2,628	38	2,666
April	6,477	2,159	37	8,673	3,015	45	3,060
May	6,930	2,451	49	9,430	3,424	55	3,479
June	6,851	2,484	55	9,390	3,530	65	3,595
July	6,882	2,602	45	9,529	3,740	54	3,794
August	7,103	2,811	61	9,975	4,125	73	4,198
September	6,807	2,444	46	9,297	3,467	50	3,517
October	7,179	2,442	52	9,673	3,379	58	3,437
November	8,385	2,810	49	11,244	4,001	59	4,060
December	8,277	2,508	40	10,825	3,566	49	3,615
Totals	83,904	28,624	514	113,042	40,378	599	40,977

Analysis of Licensed Drivers on File for 1986 — All Classifications

Age	1	1.6	2	2.6	3	3.4	3.4.6	3.6	4	4.6	5	5.6	6	Learner's Licences (Class Unknown)	Total
16.....	—	—	—	—	—	—	—	—	—	—	17,087	221	63	4,911	22,282
17.....	—	—	—	—	—	—	—	—	—	—	26,756	645	75	4,281	31,758
18.....	4	1	—	—	62	1	—	11	5	1	29,915	1,033	80	2,940	34,053
19.....	86	27	14	1	115	2	—	27	155	18	31,771	1,693	88	2,261	36,258
20.....	208	66	32	7	158	12	6	28	358	51	33,312	2,276	92	1,916	38,522
21-25.....	2,804	1,129	516	195	2,163	242	94	687	5,167	964	218,560	19,663	465	5,895	258,544
26-30.....	5,925	2,811	1,234	546	4,465	670	329	1,780	9,096	2,160	254,801	26,300	383	2,809	313,309
31-35.....	6,190	3,553	1,988	882	5,264	949	554	2,399	10,858	2,890	244,118	27,882	263	1,450	309,240
36-40.....	7,051	2,418	2,434	774	5,385	1,011	431	1,631	9,559	1,897	229,096	19,077	133	785	281,682
41-45.....	6,327	1,373	2,051	430	4,439	731	184	762	5,901	754	173,131	8,552	36	372	205,043
46-50.....	5,347	744	1,661	254	3,790	487	97	479	3,760	313	136,605	4,560	33	261	158,391
51-55.....	4,281	468	1,286	146	3,394	420	59	304	2,343	184	121,133	3,105	21	250	137,394
56-60.....	2,910	284	938	107	3,111	273	30	178	1,763	100	116,613	2,353	28	187	128,875
61-65.....	1,315	91	560	42	1,975	127	8	93	911	40	111,653	1,529	28	168	118,540
66-70.....	343	14	209	9	706	43	3	27	391	19	91,733	912	12	119	94,540
71-75.....	46	2	42	1	153	4	1	2	159	5	74,319	518	7	64	75,323
76-80.....	4	—	9	1	18	—	—	—	18	1	45,284	123	11	28	45,497
81-85.....	—	—	—	—	3	—	—	—	6	—	23,671	25	6	5	23,716
86-90.....	—	—	—	—	—	—	—	—	1	—	9,700	5	4	1	9,711
91-95.....	—	—	—	—	—	—	—	—	—	—	3,378	1	2	—	3,381
96-105.....	—	—	—	—	—	—	—	—	—	—	872	—	—	—	872
Total.....	42,841	12,981	12,974	3,395	35,202	4,972	1,796	8,408	50,451	9,397	1,993,508	120,473	1,830	28,703	2,326,931